Brakes

ARMOURED VEHICLES

KNOTT – Specialist in military brakes and braking systems

www.knott.de
We make your brake

“We design optimum brakes that are specially attuned to your requirements. We examine your requirements very closely to find the best technical solution for your specific operating conditions. This brochure shows a selection of the results of KNOTT’s development expertise.”

Stephan Raab
Sales and Application Engineering

“At KNOTT, our aim is to ensure that you can rely on your brakes in the long-term. Our service therefore keeps replacement parts and consumables available for you, regardless of how long your brakes have been in use. Our customers rely on a high level of supplier reliability, and this is the case worldwide.”

Johanna Rettenbeck
Head of Customer Service

“You benefit from our many years of experience on an international level in the design and manufacture of tailor-made brakes, particularly brakes designed for off-road use and for special environments. We are aware of the tough conditions that your brakes face. Yet, regardless of how complex your vehicle is, KNOTT has the right brake for you.”

Richard Hamberger
Head of Sales
HYDRAULIC FIXED CALIPER (HFS) 4X85

Maximum safety in every area of use

The “Boxer” is one of the most sought-after armoured wheeled vehicles offering the highest level of safety in the world. Not least because its modular design allows it to adapt to any scenario. The consequence of this is increasingly heavy vehicles that need to brake accordingly. On any terrain, anywhere in the world. A design that KNOTT supported with its latest braking system.

What the customer needed:

• A reliable service brake for 27 inch rims.
• A system that can be installed and serviced with the greatest of ease.
• A system that functions perfectly in any terrain throughout the world - regardless of whether this involves snow, ice, sand, mud, dust or water.

How KNOTT responded: the HFS 4x85

• A reliable fixed caliper disc brake, which does not exhibit any drag losses due to the active piston return, therefore increasing the service life of the lining.
• Possibly the most powerful system of its type, which can be operated in confined spaces with low maintenance.
• A robust design, which offers reliable protection in extreme environments.

CONCLUSION: The KNOTT HFS 4x85 is the robust and compact braking system for the heaviest vehicles used in demanding operations.
HYDRAULIC FIXED CALIPER (HFS) 4X70

Highest level of safety in the smallest of spaces

With the HFS 4x70, KNOTT has created a new generation of fixed caliper brakes. It is not currently possible to achieve a greater braking force or a higher level of reliability in the traditional 20 inch rims. The system is already in use in various prototypes, such as 8x8 vehicles by different manufacturers, and is proving itself to live up to expectations.

What the customer needed:

- A strong service brake for axle loads of up to 9 tonnes.
- A system that can be installed in the smallest space (20").
- A system that is attuned to the growing military demands of the future.

How KNOTT responded: the HFS 4x70

- A compact fixed caliper disk brake for use in 20" rims.
- A strong system for up to 9 tonnes of axle load.
- A system that is reliably protected whilst working on the most extreme terrains.

CONCLUSION: The KNOTT HFS 4x70 is the answer to the demand for strength, space-saving and robustness – especially in 8x8 vehicles.
MECHANICAL SLIDING CALIPER (MGS) 45

Safety and function – whether in the desert or in the Arctic Circle

The areas of application of military vehicles are constantly changing. This requires a fixing brake that can survive in the searing heat and biting cold. It must be robust and reliable. The MGS 45 by KNOTT offers exactly that – with a traditional cable, linkage or spring pack cylinder.

What the customer needed:
- A simple and safe emergency or parking brake.
- A system that can be used on the most varied of environmental.
- A system that is easy to service.

How KNOTT responded: the MGS 45
- A traditional and low-maintenance parking brake.
- A system that functions irrespective of ambient temperature.
- A powerful parking brake, even on 60% inclines.

CONCLUSION: The KNOTT MGS 45 is the reliable and robust, tried and tested design in parking brakes and can be used in sand and mud and in snow and ice.
A brake must never fail, especially in a military setting! It is for this reason that the spring pack sliding caliper by KNOTT operates in accordance with the “Fail-safe” principle. When the vehicle is in operation, the brake is released by applying constant pressure. If there is a drop in pressure, the integrated spring pack initiates safe braking. It is therefore ideal for deployments where nothing can be allowed to go wrong – and for a secure hold on a 60% incline.

CONCLUSION: The KNOTT FSG 110 guarantees a safe stop and release on any terrain and in the most extreme temperatures.
The Knott Group –
global competency

The member companies of the Knott Group design, develop, produce and market braking systems for commercial and off-highway vehicles together with running gear components for trailers. Competent, one-to-one consulting and outstanding product quality are characteristic of all the companies within the Group. KNOTT’s own production plants and branch offices are supported by a world-wide dealership network.